

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CINCINNATI, OHIO 45268

December 7, 2012

Richard Rife – Owner Village Park Community Ltd. 2230 Dryden Road Moraine, Ohio 45439

Dear Mr. Rife:

Re: Summary of U.S. EPA Sampling Results

South Dayton Dump and Landfill Site – Village Park Community Main Office

Building

The United States Environmental Protection Agency (U.S. EPA) prepared this letter to inform you of the results of the sub-slab (space under your building floor) air sampling collected from your property in July 2012. The sub-slab air sample was collected as part of the vapor intrusion (VI) investigation at the South Dayton Dump and Landfill (SDDL) Site.

U.S. EPA's technical consultant, WESTON Solutions, installed and collected the subslab air sample to determine if solvent- or petroleum-related compounds (see Table 1) are present in soil vapor beneath the foundation of the main office building at concentrations which exceed sub-slab VI screening levels, as established by the Ohio Department of Health (ODH).

VI is the migration of volatile chemicals from the subsurface into overlying buildings. VI is a potential concern at any building, existing or planned, located near soil, groundwater, or soil vapor containing solvent- or petroleum-related compounds that may volatilize or chemicals that are combustible.

The sample was collected by WESTON Solutions and submitted to Air Toxics Ltd. WESTON Solutions received and validated the results of the laboratory analysis. A copy of the validated results can be found in **Attachment A.** 

The ODH has recommended the screening levels for sub-slab air samples. The screening levels represent concentrations of a substance that are unlikely to cause harmful (adverse) health effects in exposed people. A summary of the analytical results can be found in Table 1.

#### TABLE 1

## SUMMARY OF RESULTS EXCEEDING OHIO DEPARTMENT OF HEALTH SCREENING LEVELS

Building	Sampling Date	Sample Type	Parameter	ODH Screening Level (ppbv)	Detected Concentration (ppbv)
Main Office	7-12-12	Sub-slab	All parameters which showed detections were a concentration levels below the ODH respective screening levels.		DH respective

#### What do these results mean?

In July 2012, all compounds were detected at concentrations less than the ODH screening levels for sub-slab air samples. Based on the laboratory results of the sub-slab air samples collected from the main office building, the U.S. EPA and ODH conclude that no additional sampling is required, at this time.

The U.S. EPA and ODH would like to take this opportunity to thank you for participating in this important investigation.

If you have health-related questions, please contact Dr. Bob Frey at the ODH at 614-466-1069. If you have questions related to the sampling or on-going site investigation, please visit our website at <a href="www.epaosc.org/southdaytondumpsite">www.epaosc.org/southdaytondumpsite</a> or contact me at 513-569-7539.

Sincerely,

Steven L. Renninger On-Scene Coordinator U.S. EPA Region 5

Attachments:

A – Validated Analytical Results

cc: Leslie Patterson - U.S. EPA Remedial Program Manager Laura Marshall - Ohio EPA, Site Coordinator Adam Loney, CRA Site File

# ATTACHMENT A VALIDATED ANALYTICAL RESULTS

# SOUTH DAYTON LANDFILL MORAINE, MONTGOMERY COUNTY, OHIO DATA VALIDATION REPORT

**Date:** July 26, 2012

Laboratory: Air Toxics Ltd. (Air Toxics), Folsom, California

**Laboratory Project #:** 1207251

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON®) Superfund

Technical Assessment and Response Team (START)

**Weston Analytical Work Order #/TDD #**: 20405.016.008.1869.00/S05-0008-1206-003

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for 3 air sample collected for the South Dayton Landfill Site that were analyzed for the following parameters and methods.

• Volatile Organic Compounds (VOC) by TO-15

• Methane by ASTM Method D-1946

A level II data package was requested from Air Toxics. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated June 2008. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

#### **VOCs BY U.S. EPA METHOD TO-15**

#### 1. Samples

The following table summarizes the samples for which this data validation is being conducted.

			Date	Date
Samples	Lab ID	Matrix	Collected	Analyzed
2230Dryden-SS-071212	1207251A-01A	Air	7/12/2012	7/17/2012
2205ADryden-SS-071212	1207251A-02A	Air	7/12/2012	7/17/2012
2205BDryden-SS-071212	1207251A-03A	Air	7/12/2012	7/17/2012

#### 2. <u>Holding Times</u>

The samples were analyzed within the required holding time limit of 30 days from sample collection.

Data Validation Report South Dayton Landfill Site Air Toxics Ltd.

Laboratory Project #: 1207251

#### 3. Blanks

A method blank was analyzed with the VOC analysis and was free of target compound contamination above the reporting limit.

#### 4. <u>Surrogate Results</u>

The surrogate recovery results were within the laboratory-established quality control (QC) limits.

#### 5. <u>Continuing Calibration Results</u>

The continuing calibration results were within the QC limits for percent recovery except for chloromethane which had a recovery above the QC limit. Because chloromethane was not detected in the samples, no qualification was required.

#### 6. <u>Laboratory Control Sample (LCS) Results</u>

The LCS and LCS duplicate (LCSD) recoveries were within laboratory QC limits except for as follows. In the LCS and LCSD, carbon disulfide was detected slightly above the QC limit. Because carbon disulfide was not detected in the samples qualifications were not requiered.

#### 7. Overall Assessment

The VOC data are acceptable for use based on the information received.

Data Validation Report South Dayton Landfill Site Air Toxics Ltd.

Laboratory Project #: 1207251

#### **METHANE BY ASTM D-1946**

#### 1. <u>Samples</u>

The following table summarizes the samples for which this data validation is being conducted.

			Date	Date
Samples	Lab ID	Matrix	Collected	Analyzed
2230Dryden-SS-071212	1207251B-01A	Air	7/12/2012	7/17/2012
2205ADryden-SS-071212	1207251B-02A	Air	7/12/2012	7/17/2012
2205BDryden-SS-071212	1207251B-03A	Air	7/12/2012	7/17/2012

#### 2. <u>Holding Times</u>

The sample was analyzed within the required holding time limit of 30 days from sample collection.

#### 3. Blanks

A method blank was analyzed with the methane analyses and was free of target compound contamination above the reporting limit.

#### 4. <u>LCS Results</u>

The LCS and LCSD recoveries were within laboratory QC limits.

#### 5. Overall Assessment

The methane data are acceptable for use based on the information received.

Data Validation Report South Dayton Landfill Site Air Toxics Ltd. Laboratory Project #: 1207251

#### **ATTACHMENT**

# AIR TOXICS LTD. RESULTS SUMMARY



#### Client Sample ID: 2230Dryden-SS-071212 Lab ID#: 1207251A-01A

#### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j071725	Date of Collection: 7/12/12 10:08:00 AM
Dil. Factor:	1.79	Date of Analysis: 7/17/12 10:14 PM

Dil. Factor:	1.79	Date of Analysis: 7/17/12 10:14 PM		/12 10:14 PM
	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Freon 12	0.90	Not Detected	4.4	Not Detected
Freon 114	0.90	Not Detected	6.2	Not Detected
Chloromethane	9.0	Not Detected	18	Not Detected
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
1,3-Butadiene	0.90	Not Detected	2.0	Not Detected
Bromomethane	9.0	Not Detected	35	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
Freon 11	0.90	Not Detected	5.0	Not Detected
Ethanol	3.6	Not Detected	6.7	Not Detected
Freon 113	0.90	Not Detected	6.8	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Acetone	9.0	Not Detected	21	Not Detected
2-Propanol	3.6	6.1	8.8	15
Carbon Disulfide	3.6	Not Detected	11	Not Detected
3-Chloropropene	3.6	Not Detected	11	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Hexane	0.90	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.90	Not Detected	4.4	Not Detected
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Cyclohexane	0.90	Not Detected	3.1	Not Detected
Carbon Tetrachloride	0.90	Not Detected	5.6	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.90	Not Detected	2.8	Not Detected
1,2-Dichloroethane	0.90	Not Detected	3.6	Not Detected
Heptane	0.90	Not Detected	3.7	Not Detected
Trichloroethene	0.90	Not Detected	4.8	Not Detected
1,2-Dichloropropane	0.90	Not Detected	4.1	Not Detected
1,4-Dioxane	3.6	Not Detected	13	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
cis-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
4-Methyl-2-pentanone	0.90	Not Detected	3.7	Not Detected
Toluene	0.90	1.0	3.4	3.8
trans-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Tetrachloroethene	0.90	Not Detected	6.1	Not Detected
2-Hexanone	3.6	Not Detected	15	Not Detected



#### Client Sample ID: 2230Dryden-SS-071212 Lab ID#: 1207251A-01A

#### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	j071725	Date of Collection: 7/12/12 10:08:00 AM
Dil. Factor:	1.79	Date of Analysis: 7/17/12 10:14 PM

2	11170	Date 017(11a1) 010: 1711712 10:141 III		12 10.171 10.
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
1,2-Dibromoethane (EDB)	0.90	Not Detected	6.9	Not Detected
Chlorobenzene	0.90	Not Detected	4.1	Not Detected
Ethyl Benzene	0.90	Not Detected	3.9	Not Detected
m,p-Xylene	0.90	Not Detected	3.9	Not Detected
o-Xylene	0.90	Not Detected	3.9	Not Detected
Styrene	0.90	Not Detected	3.8	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
Cumene	0.90	Not Detected	4.4	Not Detected
1,1,2,2-Tetrachloroethane	0.90	Not Detected	6.1	Not Detected
Propylbenzene	0.90	Not Detected	4.4	Not Detected
4-Ethyltoluene	0.90	Not Detected	4.4	Not Detected
1,3,5-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,2,4-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,3-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,4-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
alpha-Chlorotoluene	0.90	Not Detected	4.6	Not Detected
1,2-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,2,4-Trichlorobenzene	3.6	Not Detected	26	Not Detected
Hexachlorobutadiene	3.6	Not Detected	38	Not Detected

#### Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	94	70-130



### Client Sample ID: 2230Dryden-SS-071212

### Lab ID#: 1207251B-01A

#### NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9071710		
Dil. Factor:	1.79		
		Rpt. Limit	Amount
Compound		(%)	(%)
Methane		0.00018	0.00022

Container Type: 6 Liter Summa Canister